

Alaska Department of Environmental Conservation Division of Spill Prevention and Response Contaminated Sites Program

2003 FACT SHEET MC COMMERCIAL LAUNDRY & DRY CLEANERS 314 WENDELL AVENUE FAIRBANKS, ALASKA

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What's New?

This fact sheet summarizes the documented environmental conditions in the vicinity of an operating dry cleaning facility in downtown Fairbanks (see Figure 1). The chlorinated solvent tetrachloroethene (PCE), a common dry cleaning chemical, was discovered in soil and ground water near the dry cleaner. Apparently an old wood-stave sewer line has also transported some of the PCE hydraulically up gradient from the site. Releases from the sewer line have impacted ground water near the area for the proposed Morris Thompson Cultural and Visitor Center.

Background information is presented first, followed by a summary of the site conditions. The fact sheet ends with planned future activities.

Background

During routine real estate environmental assessments, contaminated soil and ground water were discovered and reported to the Alaska Department of Environmental Conservation. The environmental assessments were conducted as part of the development of the proposed Morris Thompson Cultural and Visitor Center (MTCVC) in downtown Fairbanks. MTCVC is sponsored by the Alaska Public Lands Information Center operated by the National Park Service, Fairbanks Convention and Visitor Bureau, Tanana Chiefs Conference, City of Fairbanks, and Doyon Limited.

The preliminary data strongly suggest that there was a release of PCE associated with the operation of a dry cleaner at 314 Wendell Avenue. The property owner and dry cleaner operator were contacted by ADEC and were requested to perform additional assessments.

Summary of Site Conditions

The following are preliminary findings and should be viewed as a working hypothesis. Locations that are depicted in the following figures are approximate.

PCE and several of its natural degradation products were detected in the soil and ground water at concentrations above the Alaska Department of Environmental Conservations (ADEC) cleanup levels. The contaminated soil and ground water are in close proximity to the dry cleaner at 314 Wendell Avenue

PCE was detected in the soil at soil boring SB3 at 0.0526 milligram per kilogram (mg/kg) (see Figure 2). The ADEC soil cleanup level is 0.03 mg/kg.

PCE, trichloroethene (TCE), cis-1,2 dichloroethene (cDCE) and vinyl chloride (VC) were detected at monitoring well PP-1 at concentrations of 0.7490 milligram per liter (mg/L), 0.0994 mg/L, 0.910 mg/L, and 0.00211 mg/L respectively (see Figure 2). PCE and TCE were also detected in monitoring well PP-5 at 0.0633 mg/L and 0.00951 mg/L respectively. The ADEC ground water cleanup levels for PCE, TCE, cDCE, and VC are 0.005 mg/L, 0.005 mg/L, 0.07 mg/L, and 0.002 mg/L respectively.

The regional ground water flow direction between the Tanana River and the Chena River is generally from the southeast towards the northwest. The dry cleaner is located approximately 400 feet south of the Chena River. As a consequence, the local ground water direction at the site is probably influenced by the seasonal stage of the Chena River. The changes in the Chena River stage could cause significant and transient changes in the local ground water flow direction, thereby influencing a ground water contaminant plume.

PCE contaminated ground water was also detected at concentrations above the ADEC cleanup levels east of the site along a wood-stave sewer line. The sewer line parallels Wendell Avenue and flows towards the east. The contaminated ground water was apparently due to releases from the sewer line. The contaminated ground water is near the area for the proposed MTCVC. PCE was detected in monitoring well PP-2 at 0.021 mg/L. This well is about 120 feet east of the dry cleaner, adjacent to the sewer line, and immediately south of the proposed MTCVC.

ADEC requested an additional assessment based on the above preliminary findings and the uncertainty associated with the local ground water flow direction. The request was made to the property owner and the current operator of the dry cleaner.

ADEC believes that the preliminary findings strongly suggest that there is significant ground water contamination near the dry cleaner. The extent (length, depth, and direction) of any ground water contaminant plumes are unknown at this time. Ground water flow conditions in the local area are likely to be highly transient. Additional data are required to assess the local hydrogeology and to determine the nature and extent of any contaminant plumes and their potential impact to the Chena River.

Planned Future Activities

If both the property owner and the current dry cleaner operator are unable or unwilling to perform additional assessments, ADEC may perform the assessment. ADEC's ability to perform the assessment depends on available funding and competing state-wide projects.

In the event ADEC takes over the assessment, cost recovery will be pursued. If you have any questions or need additional information, please contact the ADEC Project Manager, Mr. Douglas Bauer, at (907) 451-2192 or at Doug_Bauer@dec.state.ak.us.